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Fred Buchali

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EXAMINER

CURS, NATHAN M

ART UNIT

PAPER NUMBER

2613

MAIL DATE

DELIVERY MODE

06/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/977,297

**Applicant(s)**

BUCHALI, FRED

**Examiner**

Nathan Curs

**Art Unit**

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2 and 7 is/are allowed.
- 6) ☒ Claim(s) 3 and 6 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claim 6 is objected to because of the following informalities:

As amended, claim 6 in lines 3-6 recites "generating... first and second data signals with pseudo-errors... to generate first and second data signals with pseudo-errors". The redundancy is improper.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakamoto et al. ("Sakamoto") (US Patent No. 5736875).

Regarding claim 3, Sakamoto discloses a high-speed eye monitor (fig. 5 and col. 5, line 65 to col. 6, line 31) comprising: first and second threshold-value decision elements for deciding a level of a data signal based on first and second threshold values which are set close to vertices of an eye opening of an eye diagram (fig. 5, elements 12 and 13); first and second signal comparators for determining pseudo-errors by comparing decided signals output by the threshold-value decision elements with a correct signal (fig. 5, elements 17 and 17); first and second integrators for integrating the pseudo-errors output by the first and second signal comparators to generate first and second internal control variables (fig. 5, elements 15 and 16); and first and second regulators which correct the first and second threshold values based on

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comparisons between the first and second internal control variables and first and second setpoint values, respectively (fig. 5, elements 22 and 23), wherein the first and second threshold-value decision elements receive the first and second threshold values from the first and second regulators (fig. 5, elements 22, 23, 24, 14, 20 and 21).

Regarding claim 6, Sakamoto discloses a method for measuring the eye opening of an eye diagram, the method comprising: generating, at first and second threshold-value decision elements, first and second data signals with pseudo-errors by determining a level of a data signal based on first and second threshold values which correspond approximately to vertices of the eye opening to generate first and second data signals with pseudo-errors (fig. 5, elements 12 and 13 and col. 5, line 65 to col. 6, line 31); detecting first and second pseudo-errors by comparing the first and second data signals with a correct signal (fig. 5, elements 17 and 17 and col. 5, line 65 to col. 6, line 31); integrating the first and second pseudo-errors (fig. 5, elements 15 and 16 and col. 5, line 65 to col. 6, line 31); comparing the integrated first and second pseudo-errors with first and second setpoint values, respectively, and correcting, at first and second regulators, the first and second threshold values based on the comparisons between the integrated first and second pseudo-errors and the first and second setpoint values (fig. 5, elements 22 and 23 and col. 5, line 65 to col. 6, line 31), wherein the first and second threshold-value decision elements receive the first and second threshold values from the first and second regulators (fig. 5, elements 22, 23, 24, 14, 20 and 21); and generating a differential signal of the corrected first and second threshold values as a measurement value of the eye opening (fig. 5, element 24).

***Allowable Subject Matter***

4. Claims 1, 2 and 7 are allowed.

5. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

6. Applicant's arguments filed 14 March 2007 have been fully considered but they are not persuasive.

The applicant has added limitations to claims 3 and 6 and argued that these serve to overcome Sakamoto. However, the language "the first and second threshold-value decision elements receive the first and second threshold values from the first and second regulators" is fairly broad with respect to the handoff between the elements and does not exclude the possibility of intermediary elements. Therefore, the added language is not sufficient to overcome Sakamoto.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication from the examiner should be directed to N. Curs whose telephone number is (571) 272-3028. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached at (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (800) 786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://paired.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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